

A NEW SPECIES OF *Varanus* FROM YUNNAN, WITH MORPHOLOGICAL COMPARISON BETWEEN IT AND SIX OTHER SPECIES FROM SOUTHEAST ASIA

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In Southeast Asia so far have been known six species of *Varanus*, *bengalensis*, *dumerili*, *flavescens*, *monitor*, *rudicollis*, and *salvator* (Rooij, 1915; Smith, 1930, 1935; Harrison, 1957; and Taylor, 1963). A specimen captured from Yunnan in 1986 is classified as a new species and described as follows. The type specimen is preserved in Kunming Institute of Zoology, Academia Sinica.

Varanus irrawadicus sp. nov.

Type specimen: KIZ86001, adult male, Wanding valley (ca. 24°N, 98°E), Yunnan, 1986.

Diagnosis: *V. irrawadicus* differs from *V. bengalensis* in having, supraoculars small and not widened (Figs. 1, 2:i); nostril at midway between eye and snout tip, i.e. $A=B$, where A represents the distance from nostril to eye, and B from snout tip to nostril; ventrals in 75 transverse rows; chevron-shaped marking on nape absent.

Description: Head elongated, 94 mm long, 48 mm wide; snout length 47 mm; snout-vent length 515 mm; tail length 720 mm; snout rather pointed and a little depressed; rostral process distinct; nostril appearing as an oblique slit at midway between eye and snout tip; scales which are anterior to nostril irregular and larger than the other scales on the head, of which supraoculars are the smallest, and not widened; temporals small, almost equal to supraoculars; tympanum large and oval; distance from eye to tympanum equal to from eye to nostril; mentals slightly smaller than rostrals; chin-shields 4 pairs, with the two posteriormost pairs separated by small scales; a deep mental groove present; nuchals smooth, oval, not enlarged, slightly projected, and pitted; posterior dorsals strongly keeled and all pitted; ventrals between axilla and groin smooth in 75 transverse rows; preanal pores 2 pairs; nuchal folds indistinct; tail with 2 rows of crests.

Digits elongated, clawed, and compressed; 3rd finger with 20 and 4th toe with 22 transverse rows of scales on under surface.

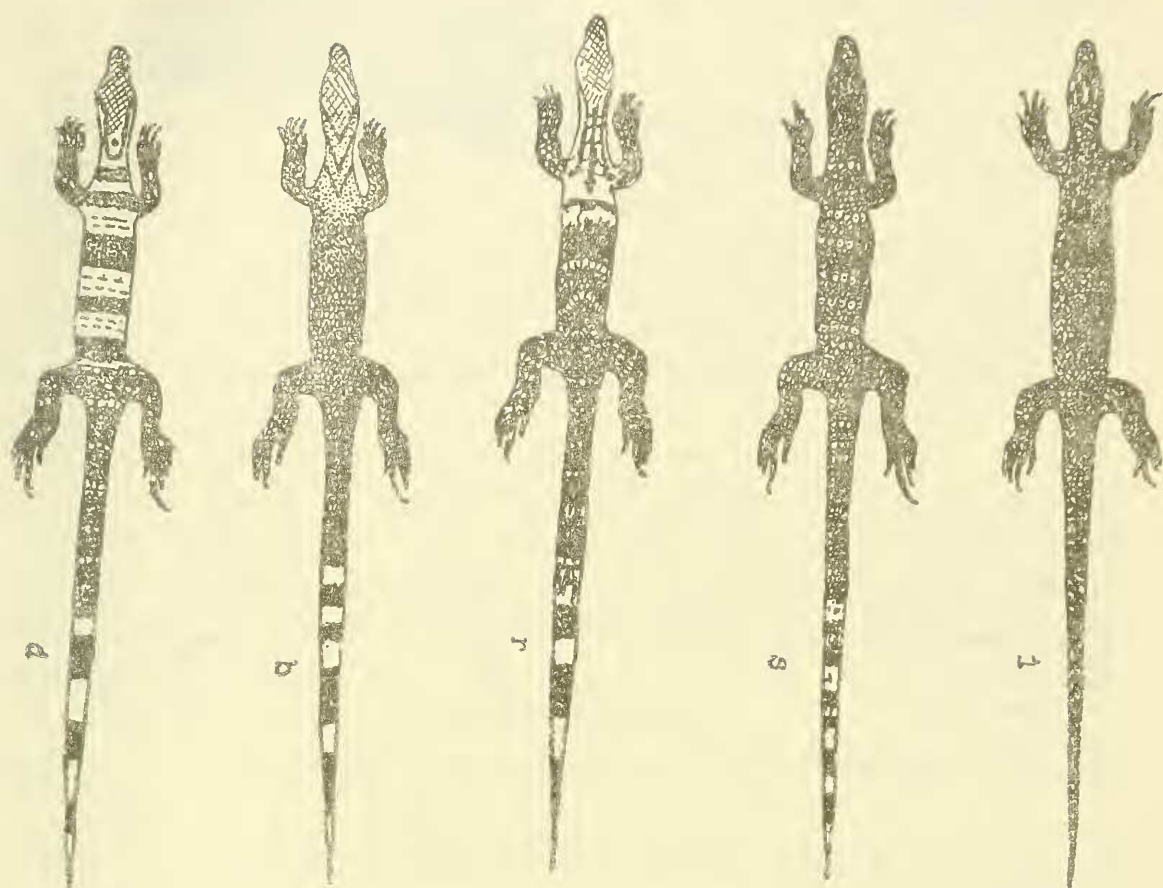


Figure 1 Comparison of the colour patterns of five species

i - *V. irrawadicus*, s - *V. salvator*, r - *V. rudicollis*,
b - *V. bengalensis*, d - *V. dumerili*, (s, r, b, d, from Harrison 1957).

Back blackish brown with small yellow spots; nape without chevron-shaped marking but with marbling on and under the neck; head with black reticular markings; temporal streak dark and distinct; narrow, transverse bar indistinct on tail; ventral and under surface of leg scattered with some blackish brown spots.

Morphological comparison between seven species of *Varanus*:

V. bengalensis (Daudin) (Figs. 1, 2:b)

1.5A=B; supraoculars 4-7, transversely widened; head scales small, subequal; supralabials 21; infralabials 25; nuchals on the anterior surface of nape smooth, roundish and comparatively large; back covered with small, oval, and keeled scales; ventrals smooth in about 80 transverse series; fourth toe with 25-28 transverse rows of scales.

V. dumerili (Schlegel) (Figs. 1, 2:d)

2A=B; median supraoculars slightly enlarged; scales between eyes and snout

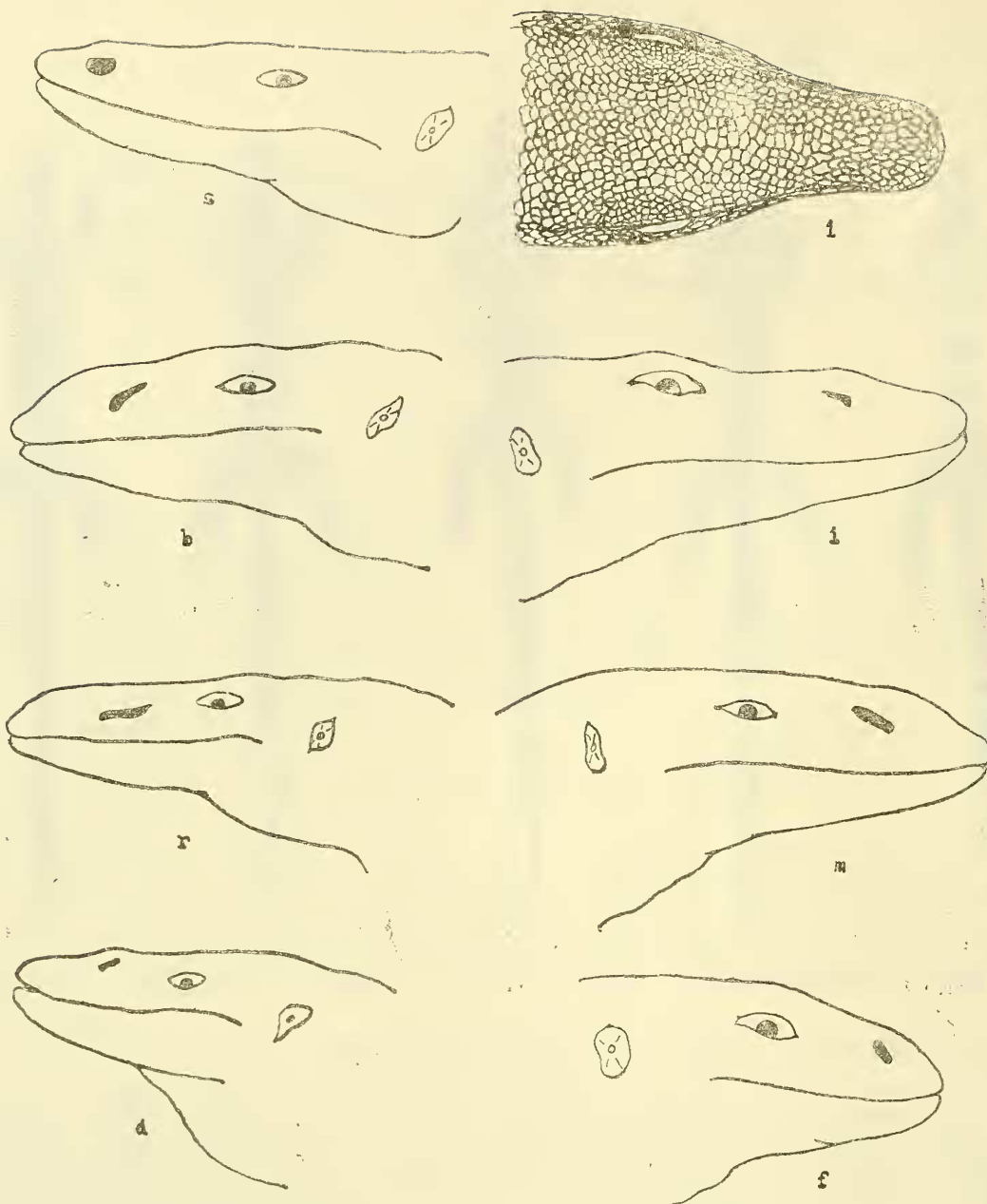


Figure 2 The position of the nostril relative to the eye and snout for seven species of *Varanus*: i - *V. irrawadicus* m - *V. monitor*, f - *V. flavescens*, s - *V. salvator*, b - *V. bengalensis*, r - *V. rudicollis*, d - *V. dumerili* (i - upper view showing supraoculars not enlarged)

tip slightly enlarged transversely; scales on head not very large, subequal; nuchals very large, almost as long as broad, those at the posterior flattened; ventrals slightly keeled in 75-85 transverse series; fourth toe with 17 transverse rows of scales on under surface; a pair of preanal pores present in males.

V. flavescens (Hardwicke and Gray) (Fig. 2:f)

A>B; medial supraoculars widened transversely; about 18 supralabials and a similar number of infralabials; nuchals larger than head scales, all keeled; ventrals

in 65-75 transverse rows.

V. irrawadicus sp. nov.

$A=B$; supraoculars small and irregular; scales on snout and interorbital region smooth, larger than those on head,

V. monitor (Linnaeus) (Fig. 2:m)

$A<B$; nostril nearer to the orbit than is snout tip; supraoculars small, subequal; head scales rounded, not keeled, larger than nuchals, similar in size to anterior dorsals; ventrals smooth in 90-110 transverse rows.

V. rudicollis (Gray) (Figs. 1, 2:r)

$2A=B$; supraoculars 3-6, transversely widened; head scales not very large, subequal; nuchals very large, strongly keeled; body covered with small and strongly keeled scales; ventrals keeled in 85 transverse rows; a pair of preanal pores present in males.

V. salvator (Laurenti) (Figs. 1, 2:s)

$2.5A=B$; supraoculars about 6, widened transversely; scales on the snout and interorbital region largest; supralabials 36; nuchals large and hump; body covered with large and strongly keeled scales; ventrals quite large, in 76-80 transverse series; fourth toe with 29 transverse series of scales on under surface; two pairs of preanal pores present.

LITERATURE CITED

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云南巨蜥一新种——伊江巨蜥的描述及其与 东南亚六种的形态学比较 摘 要

据文献记载,东南亚有六种巨蜥。1986年我们从云南省晚町河谷(约北纬 24° ,东经 98°)采到一雄性成体巨蜥标本。经鉴定为一新种,命名为伊江巨蜥(*Varanus irrawadicus*)。模式标本 KIZ 86001 保存于中国科学院昆明动物研究所。本文对此新种作了描述,并与东南亚的六个已知种作了形态学上的比较。